

**Remarks/Arguments**

**35 U.S.C. §103**

Claims 1-4, 11-15 (apparatus), and 5-10 (method), stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hirvilampi (U.S. Patent No. 6,351,189).

It is respectfully asserted that Hirvilampi does not, disclose:

“amplifying means for amplifying the transmission signal, controlled by the analog signal converted from said retrieved digital value corresponding to the type of modulation associated with a transmission signal, decreasing bias current when decreasing the efficiency per bit of the digital modulation and vice versa,”

as described in currently amended claim 1.

Among the problems addressed by the present invention is that a power amplifier used for signal transmission may consume a large amount of power, which may be particularly problematic for portable apparatuses such as mobile transceivers that utilize a battery power supply. Moreover, the power consumption of the power amplifier may also cause the apparatus to generate heat in an undesirable manner. (Specification, page 2)

To address these problems, the present application discloses an apparatus having a signal transmission function, which comprises amplifying means for amplifying a transmission signal. Processing means are provided for controlling the amplifying means based on a type of digital modulation associated with the transmission signal. (Specification, page 2)

In contrast, Hirvilampi teaches “a method and apparatus for auto-biasing an amplifier. The auto-bias system of the present invention has an auto-bias feedback loop that adjusts the bias condition of an amplifier to a wanted state between transmission periods. The system monitors a physical quantity indicative of the operating state of the amplifier and controls the amplifier bias so as to control the amplifier operating point sufficiently to compensate for variations in amplifier electrical characteristics, amplifier load, amplifier

temperature, and input signals. The system further adjusts the amplifier operating point based on the modulation scheme used to modulate information included in an input signal provided to amplifier, thereby allowing the amplifier to operate in any one of multiple signal modulation systems.” (Hirvilampi Abstract)

As admitted in the Office Action, “Hirvilampi does not explicitly disclose converting means converting said digital value to an analog signal and said mobile transceiver having a battery power supply.” (Office Action, page 3) Furthermore, Hirvilampi explains that when “the bias control feedback circuit is closed, a measurement device also included in the bias control feedback circuit measures (603) an operating parameter, preferably a bias current, of the amplifier... The auto-bias feedback loop then adjusts (605) a bias level of the amplifier based on the measured operating parameter and on the bias level control signal.” (Hirvilampi, column 12, lines 30-41) Thus, Hirvilampi describes using a measured operating parameter, not an analog signal converted from a retrieved digital value corresponding to the type of modulation, for amplifier bias control. Therefore, Hirvilampi does not, disclose: “amplifying means for amplifying the transmission signal, controlled by the analog signal converted from said retrieved digital value corresponding to the type of modulation associated with a transmission signal, decreasing bias current when decreasing the efficiency per bit of the digital modulation and vice versa,” as described in currently amended claim 1.

In view of the above remarks, it is respectfully submitted there is no 35 USC 112 enabling disclosure provided by Hirvilampi, which makes the present invention as claimed in claim 1 unpatentable. It is further submitted that currently amended independent claims 5 and 11 are allowable for at least the same reasons that claim 1 is allowable. Since dependent claims 2-4, 6-10, and 12-15 are dependent from allowable independent claims 1, 5, and 11 respectively, it is respectfully submitted that they too are allowable for at least the same reasons that their respective independent claims are allowable. Thus, it is further respectfully submitted that this rejection has been satisfied and should be withdrawn.

Having fully addressed the Examiner’s rejections it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the

Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's representative at (609) 734-6804, so that a mutually convenient date and time for a telephonic interview may be scheduled.

No fee is believed due. However, if a fee is due, please charge the additional fee to Deposit Account 07-0832.

Respectfully submitted,

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